

PREFACE

The *Environmental Report 2000* is prepared for the U.S. Department of Energy (DOE), as required by DOE Order 5400.1 and DOE Order 231.1, by the Environmental Protection Department at Lawrence Livermore National Laboratory (LLNL). The results of LLNL's environmental monitoring and compliance efforts and an assessment of the impact of LLNL operations on the public and the environment are presented in this publication.

To produce a more readable and useful document for our diverse readership, which includes regulators, scientists and engineers, educators, the media, public interest groups, and interested citizens, this report is divided into two volumes: main volume and Data Supplement. The main volume describes LLNL's environmental impact and compliance activities and features descriptive and explanatory text, summary data tables, and plots showing data trends. The summary data include measures of the central tendency of the data (i.e. mean and median), their spread or variability, and their extreme values. The main volume contains the Executive Summary and the Compliance Summary; it features individual chapters on monitoring of air, sewage, surface water, groundwater, soil and sediment, vegetation and foodstuff, and environmental radiation; and it contains chapters on site overview, environmental program information, groundwater investigation and remediation, radiological dose assessment, and quality assurance. Information on both the Livermore site and Site 300 is presented in each chapter. The main volume contains the information of interest to

most of our readers and will be distributed. The distribution list for the 2000 report can be accessed from the LLNL Site Annual Environmental Report (SAER) homepage on the Internet at the address provided below. Requests for additions to or deletions from the list can be made on the distribution list webpage.

The Data Supplement provides individual data points, where applicable, some summary data, and more detailed accounts of sample collection and analytical methods. The Data Supplement will be sent only upon request; a card for this purpose is included on the last page of this volume.

Environmental reports covering calendar years 1994 through 2000 can be accessed on the Internet at the address of the LLNL SAER homepage: <http://www.llnl.gov/saer>. Both the main volume and data supplement volume of each individual report can be viewed in its most up-to-date form.

This document is the responsibility of LLNL's Operations and Regulatory Affairs Division of the Environmental Protection Department. Monitoring data were obtained through the combined efforts of the Operations and Regulatory Affairs Division, Environmental Restoration Division, the Chemistry and Materials Science Environmental Services Laboratories, and the Hazards Control Department. Special recognition is deserved for the dedication and professionalism of the technicians who carried out environmental monitoring—

Gary A. Bear, David J. Castro, Paul C. Dickinson, David Macedo, Charles Hunt, Renee Needens, Terrance W. Poole, Donald G. Ramsey, Terri Crippen, and Robert Williams—and to the data management personnel— Kimberly A. Stanford, Louise Morris, Beth Schad, Jean Seymour, Suzanne Chamberlain, Connie Wells, Della Burruss, Susan Lambaren, Nancy Montez, Lisa Graves, and Sheila Hodgson. Judy Kelly provided secretarial support and collated and distributed drafts.

Special thanks go to Bill Hoppes for his strong support of the project and careful and timely reviews of all the drafts; C. Susi Jackson and Charlene Grandfield for reviewing the chapters; and Karen Folks and Paula Kato for their comments and coordination efforts. In addition, the following people contributed significantly to this report: Keith V. Gilbert, Albert L. Lamarre, Patricia L. Ottesen, Duane W. Rueppel, Nona Sanford, Carol Stoker, Sharlene Markow, and Kim Heyward.